



TALLINNA
TEHNIKAKÕRGGKOOI
TTK UNIVERSITY OF APPLIED SCIENCES

RoadBIM Seminar
11.09.2013 Tallinn

Digital Infrastructure

- Roads and Railways
in Denmark
by Jan Karlshøj



DIGITAL INFRASTRUCTURE

- ROADS AND RAILWAYS

BASED ON A PRESENTATION FROM VEJFORUM 2012

5. DECEMBER 2012 | HOTEL NYBORG STRAND DENAMRK BY RASMUS FUGLSANG JENSEN

DIGITAL INFRASTRUCTURE



Introduction to Digital Infrastructure

- Rasmus Fuglsang Jensen, Road Directorate

Use of design for machine guidance

- Poul-Erik Olsen, Barslund A/S &
- Rie Rohde, Spotland Surveyors



Use of data from machine guidance

- Claus Rikhof, Engineering Colleges Copenhagen
- Mads Top Petersen, Engineering Colleges Copenhagen



Tendering of digital projects

- Sven Ø. Ladefoged, COWI A/S



How to use data in the field

- Søren Hauge Krabbe, Road Directorate

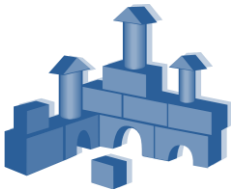
WHAT IS INCLUDED IN DIGITAL INFRASTRUCTURE



Use digital tools and collaboration to increase efficiency and quality in infrastructure projects in Denmark



Explore the potential of GPS

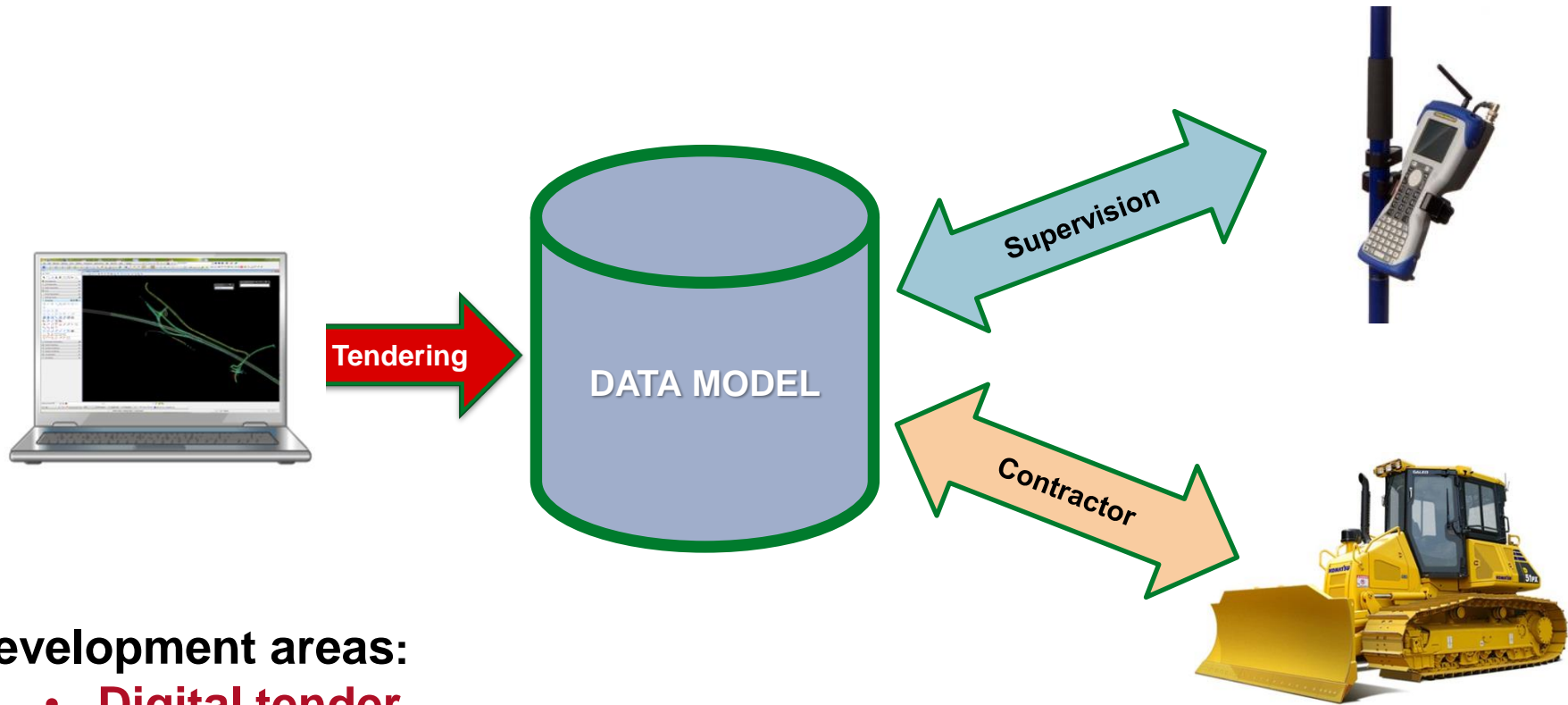


Inspiration from the Digital Construction development program



Collaboration

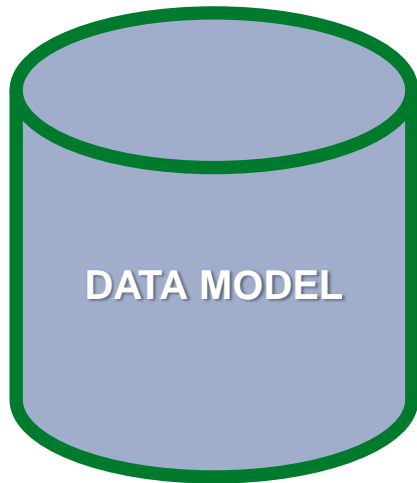
DIGITAL MODEL IN THE CENTRE



Development areas:

- Digital tender
- Data model
- ProjektWEB
- Digital delivery

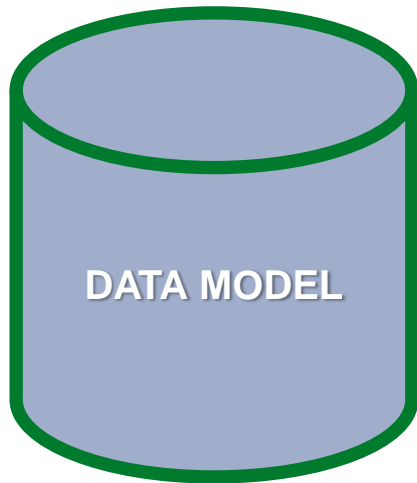
POTENTIAL USE OF DIGITAL DATA



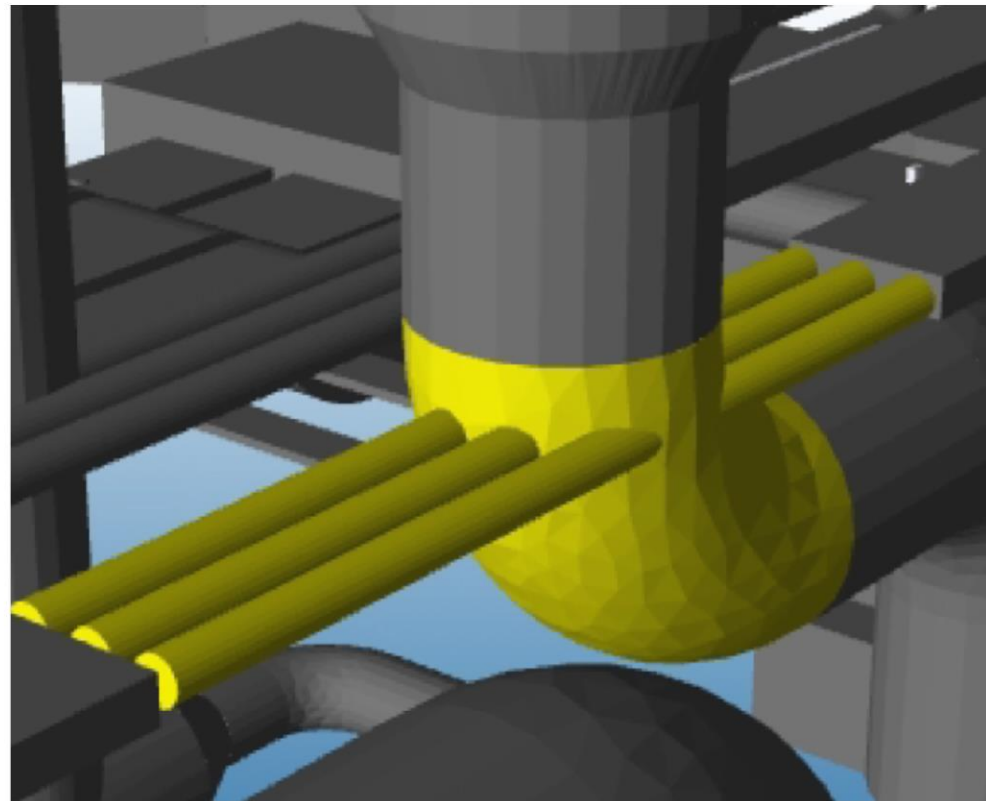
Point cloud



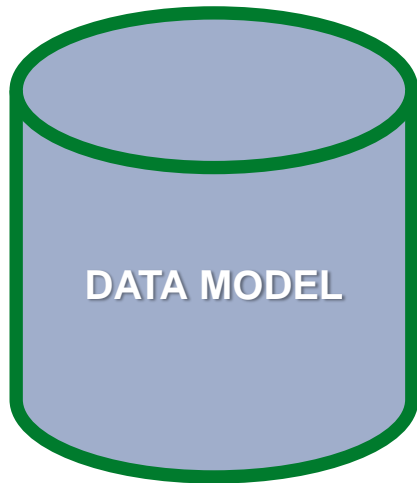
POTENTIAL USE OF DIGITAL DATA



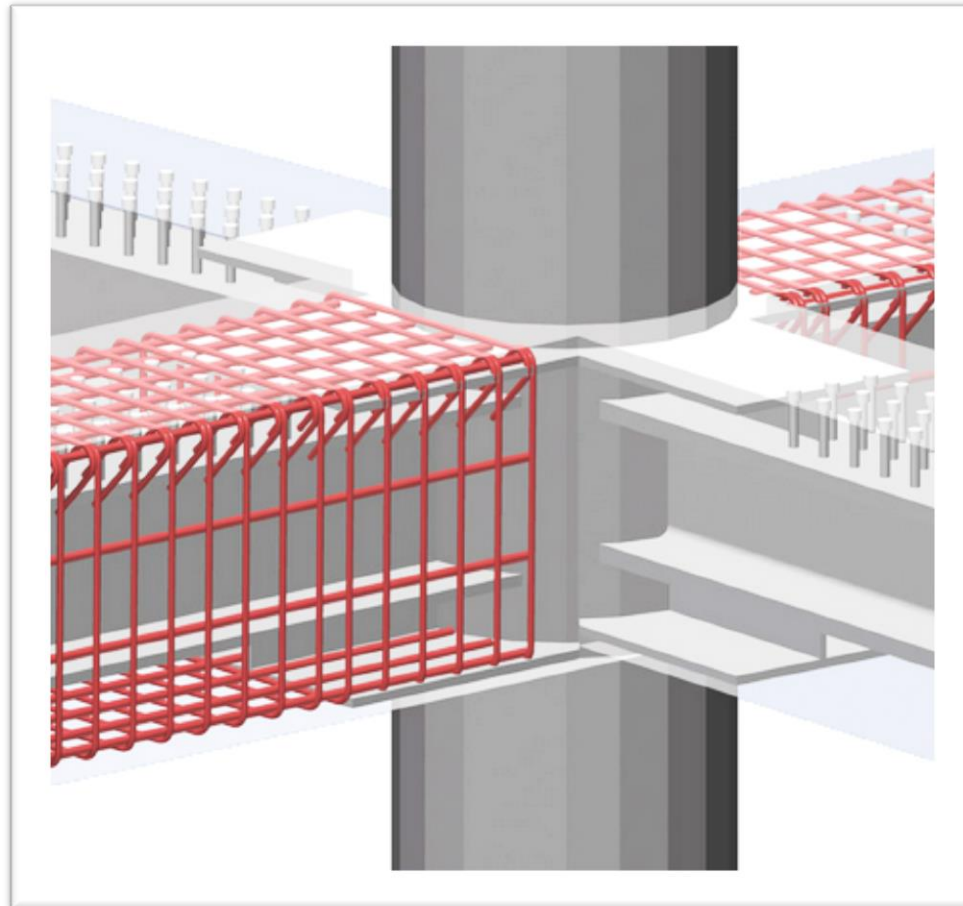
Clash detection



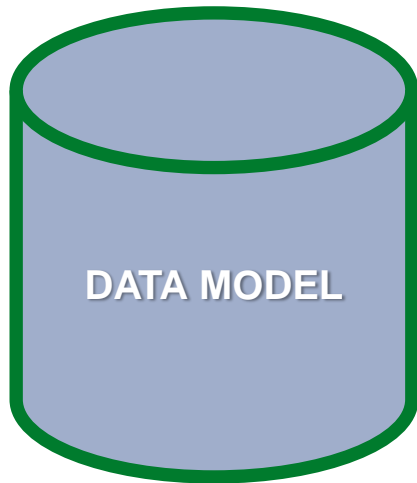
POTENTIAL USE OF DIGITAL DATA



Objects



POTENTIAL USE OF DIGITAL DATA



Machine guidance



KEYWORDS

- Structure
- Sorting
- Information sharing
- Xd model data



SECTOR INITIATIVE

ROAD DIRECTORATE, RAIL OWNER, DANISH INFRASTRUCTURAL CONSTRUCTORS, DANISH ASSOCIATION OF CONSULTING ENGINEERS, FEMERN (TUNNEL TO GERMANY)



Foreningen af
Rådgivende Ingeniører
FRI



banedanmark



danske
anlægsentreprenører

Femern
Sund ≈ Bælt

WORKSHOP

- Where to improve?
- Technology is here
- 3d data makes a different
- Exchange of data
- Requirements to tendering
- Focus on what can be archived now

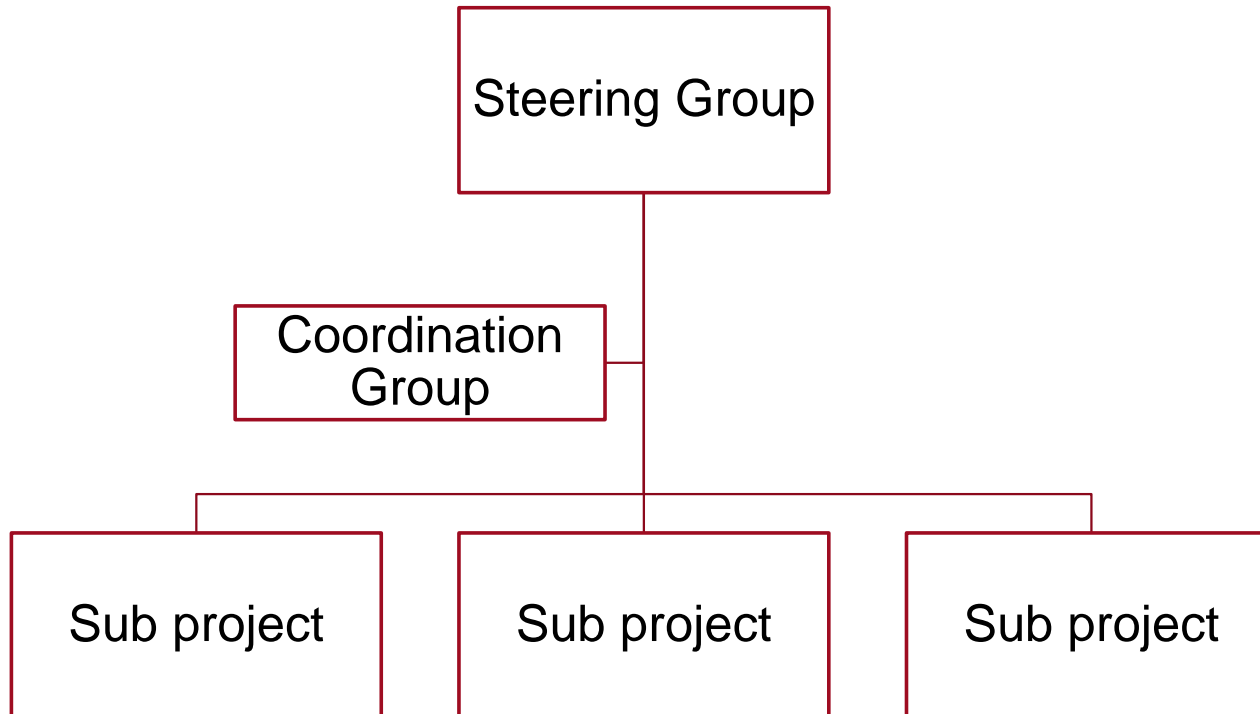


ACTION PLAN

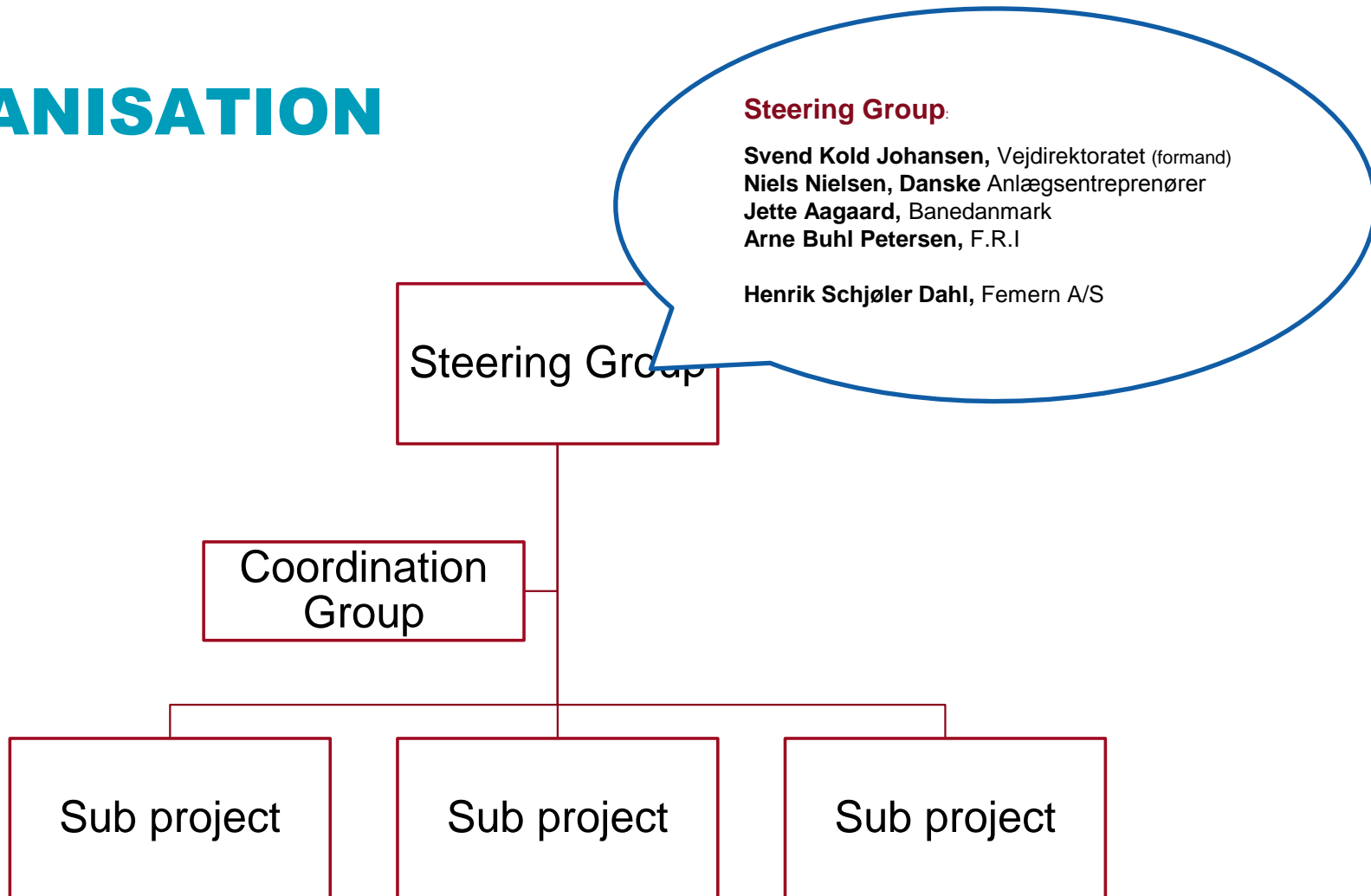
- Increase efficiency in the whole construction process
- Participants provide in-kind contribution
- Collaboration to solve sub projects



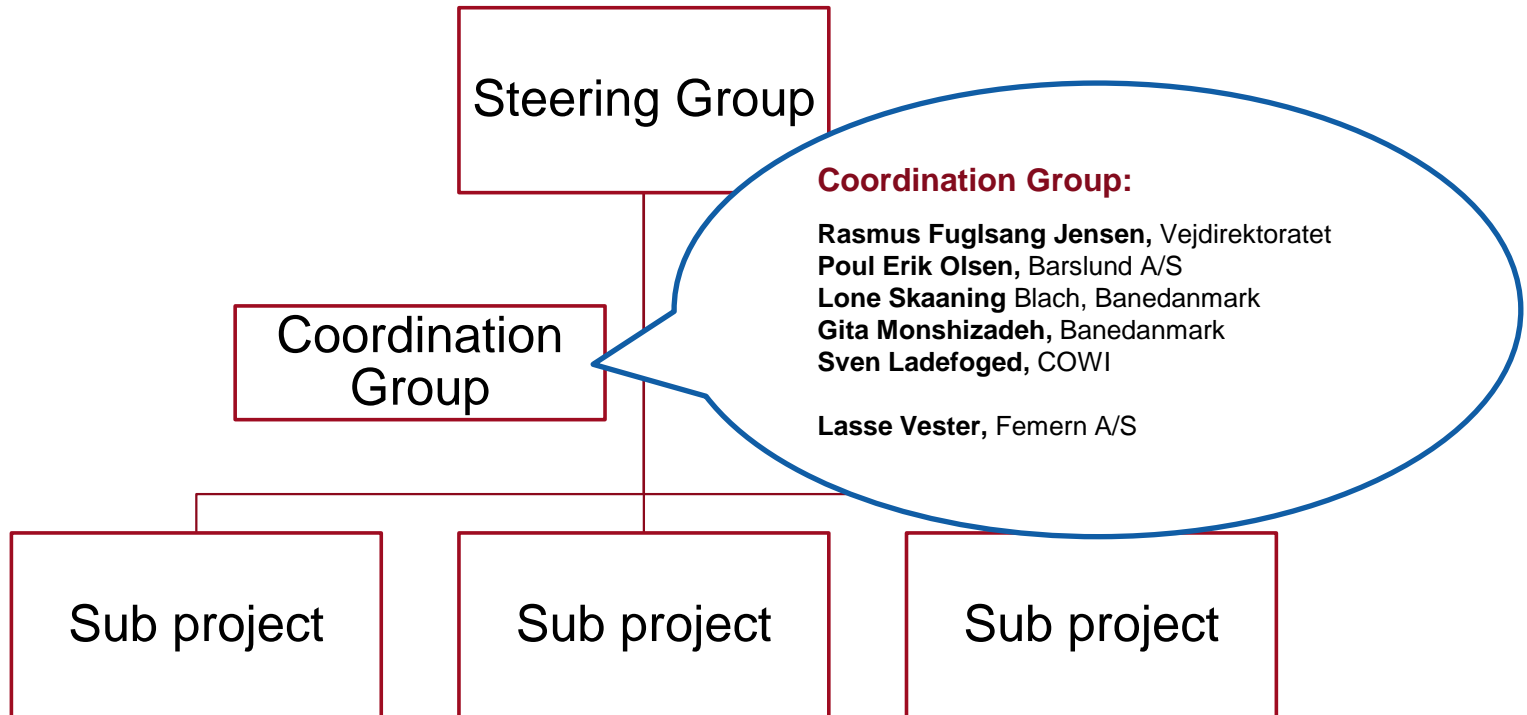
ORGANISATION



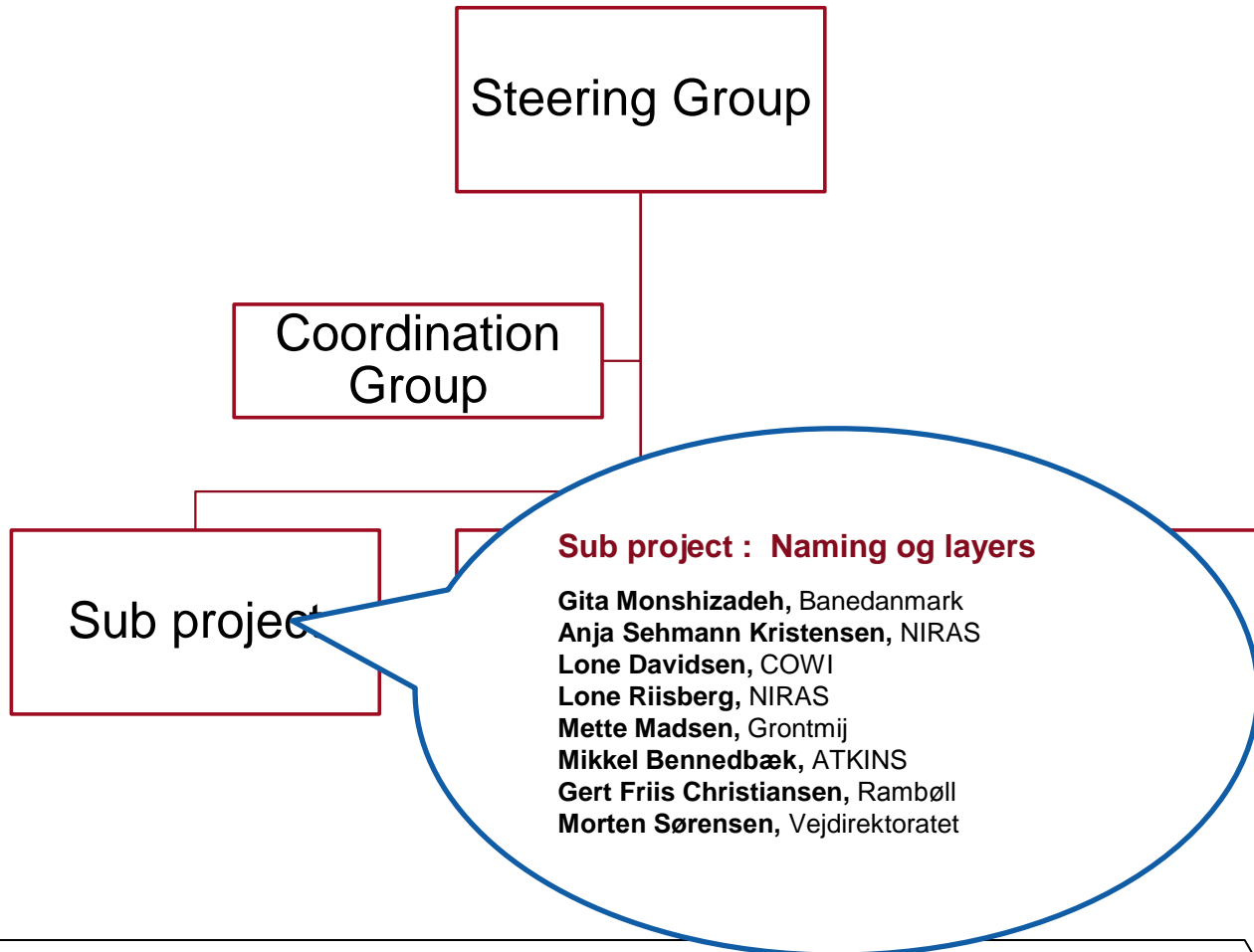
ORGANISATION



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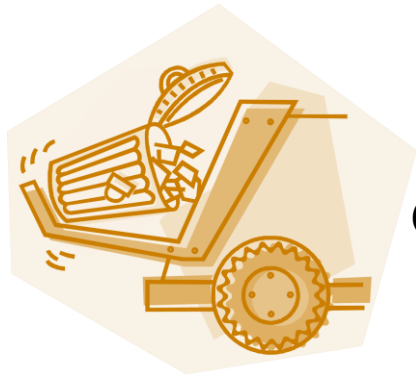


SUB PROJECTS



Data Exchange format

Naming of layer



Collecting data from machine guidance

Reference coordinate system



INFO

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